**PATENT** 

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Mail Stop Patent Application **Commissioner for Patents** P.O. Box 1450 Alexandria, VA 22313-1450

# NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): Hideki TSUCHIDA, Masaru KUSAKA and Shinjiro HAYASHI

**WARNING:** 37 CFR 1.41(a)(1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors."

For (title): A PROCESS FOR COPPER ELECTROPLATING

## CERTIFICATION UNDER 37 C.F.R. 1.10\*

(Express Mail label number is mandatory.) (Express Mail certification is optional.)

I hereby certify that this correspondence and the documents referred to as attached therein are being deposited with the United States Postal Service on this date November 26, 2003, in an envelope as "Express Mail Post Office to Addressee," mailing Label Number EV342619005US , addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Deanna M. Rivernider

(type or print name of person mailing paper)

Signature of person mailing paper

**WARNING:** 

Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. 1.8 cannot be used to

obtain a date of mailing or transmission for this correspondence.

\*WARNING:

Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label

placed thereon prior to mailing. 37 C.F.R. 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

### Type of Application 1.

This new application is for a(n)

(check one applicable item below)

	[X]	Original (nonprovisional)					
[]		Design					
	[]	Plant					
WARNING:		<b>Do not</b> use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-inpart application.					
WARNI	NG:	Do not use this transmittal for the filing of a provisional application.					
TRANS		the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION IITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION IN PARENT ATION OF THE FILING OF THIS CONTINUATION APPLICATION.					
	[]	Divisional.					
	[]	Continuation.					
	[]	Continuation-in-part (C-I-P).					
2.	Benefit	of Prior U.S. Application(s) (35 U.S.C. 119(e), 120, or 121)					

NOTE: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. 112. Each prior application must also be:

- (i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or
- (ii) Complete as set forth in § 1.51(b); or
- (iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
- (iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(l) within the time period set forth in § 1.53(f).

37 CFR 1.78(a)(1).

If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or NOTE where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

**WARNING:** If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. 120, 121 or 365(c). (35 U.S.C. 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205. **WARNING:** When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application must be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3). [ ] The new application being transmitted claims the benefit of prior U.S. application(s). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED. **Papers Enclosed** 3. A. Required for Filing Date under 37 C.F.R. 1.53(b) (Regular) or 37 C.F.R. 1.153 (Design) Application Pages of Specification Pages of Claims Sheets of Drawing Formal []Informal В. Other Papers Enclosed 1 Pages of Abstract Other **WARNING:** DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and nonshiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. For comments on proposed then-new 37 C.F.R. 1.84, see Notice of March 9, 1988 . . . (1990 O.G. 57-62). NOTE: "Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top of the page." 37 C.F.R. 1.84(c)). (complete the following, if applicable) [] The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO

ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. 1.84(b).

4.	Additional Papers Enclosed								
		Inform Form Form Form Form Form Form Form F	ation of Biological Deposit ssion of "Sequence Listing," computer readable copy and/or amendment ing thereto for biotechnology invention containing nucleotide and/or amino acid ce. rization of Attorney(s) to Accept and Follow Instructions from Representative						
	[]	Other:	I Comments						
5.	Declar	ation o	·Oath						
NOTE:	TE: A newly executed declaration is not required in a continuation or divisional application provided the prior nonprovisional application contained a declaration as required, the application being filed is by all or fewer than at the inventors named in the prior application, there is no new matter in the application being filed, and a copy of the executed declaration filed in the prior application (showing the signature or an indication thereon that it was signed is submitted. The copy must be accompanied by a statement requesting deletion of the names of person(s) who are no inventors of the application being filed. If the declaration in the prior application was filed under § 1.47 then a copy that declaration must be filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning personal perso								
NOTE:	identify ( together	each inver with any	to complete an application must be executed, identify the specification to which it is directed, notor by full name, including the family name, and at least one given name without abbreviation other given name or initial, and the residence, post office address and country of citizenship of each whether the inventor is a sole or joint inventor. 37 CFR 1.63(a)(1)-(4).						
	[]	Enclos	ed						
		Execut	(check all applicable boxes) inventor(s). legal representative of inventor(s). 37 CFR 1.42 or 1.43. joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.  [] This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See item 13 below for fee.						
	[X]	Not En	closed.						
NOTE:	applicati continua	ion contai ition or co	a completion in the U.S. of an International Application, or where the completion of the U.S. ns subject matter in addition to the International Application, the application may be treated as a intinuation-in-part, as the case may be, utilizing ADDED PAGE FOR NEW APPLICATION THERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.						
		[]	Application is made by a person authorized under 37 C.F.R. 1.41(c) on behalf of all the above named inventor(s)						

(Th	e declara	ition or o	ath, along with the surcharge required by 37 CFR 1.16(e), can be filed subsequently).		
NOTE:	It is impo	ortant that	all the correct inventor(s) are named for filing under 37 CFR 1.41(c) and 1.53(b).		
			[ ] Showing that the filing is authorized.  (not required unless called into question. 37 CFR 1.41(d))		
6.	Invent	orship S	tatement		
WARNI	NG:		ned inventors are each not the inventors of all the claims an explanation, including the ownership ious claims at the time the last claimed invention was made, should be submitted.		
The inv	ventorsh	ip for all	the claims in this application are:		
	[]	The san			
	[]		same. An explanation, including the ownership of the various claims at the time claimed invention was made, is submitted. will be submitted.		
7.	Langu	age			
NOTE:	translati	application including a signed oath or declaration may be filed in a language other than English. An English nslation of the non-English language application and the processing fee of \$130.00 required by 37 CFR 1.17(k) is written to be filed with the application, or within such time as may be set by the Office. 37 CFR 1.52(d).			
	[X] [ ]	English Non-En	glish		
		[]	The attached translation includes a statement that the translation is accurate. 37 C.F.R. 1.52(d).		
8.	Assign	ment			
	[X]	An assig	gnment of the invention to Shipley Company, L.L.C. of Marlborough, Massachusetts		
		[]	is attached. A separate [ ] "COVER SHEET FOR ASSIGNMENT (DOCU- MENT) ACCOMPANYING NEW PATENT APPLICATION" or [ ] FORM PTO 1595 is also attached.		
		[ ] [X]	was filed in the parent application will follow.		
NOTE:			s submitted with a new application, send two separate letters-one for the application and one for tice of May 4, 1990 (1114 O.G. 77-78).		
WARNI	NG:		xecuted "STATEMENT UNDER 37 CFR 3.73(b)" must be filed when a continuation-in-part on is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.		

9.	Certified	Conv
7.	Cutilica	COPI

Certified copy(ies) of application(s)

Country	Appln. No.	Filed	
	<del></del>		
Japan	2002-345430	11/28/2002	

from which priority is claimed

[]	is enclosed.
[]	was filed.
[X]	will follow.

NOTE: The foreign application forming the basis for the claim for priority must be referred to in the oath or declaration. 37 CFR 1.55(a) and 1.63.

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. 120 is itself entitled to priority from a prior foreign application, then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

# 10. Fee Calculation (37 C.F.R. 1.16)

A. [X] Regular application

CLAIMS AS F	ILED			-	
Claims	Number Filed	Basic Fee Allowance	Number Extra	Rate	Basic Fee 37 C.F.R. 1.16(a) \$770.00
Total Claims (37 CFR 1.16(c))	8	- 20 =	0	x \$ 18.00	\$0
Independent Claims (37 CFR 1.16(b))	2	- 3 =	0	x \$86.00	\$0
Multiple Dependent Claim(s), if any (37 CFR 1.16(d))			+	\$290.00	\$0

[]	Amendment canceling extra claims is enclosed.
[]	Amendment deleting multiple-dependencies is enclosed
[]	Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 CFR 1.16(d).

Filing Fee Calcu	lation	\$ 770.00

	В.	[]	_	applicat 00—37 C		5(f))					
						Filing Fee	Calculation	n	\$		
	C.	[]		pplicatio 00—37 C		o(g)) Filing Fee	Calculation	n	\$		
11.	Small	Entity S	Statemei	nt(s)							
	[]	Stateme attache		at this is	s a filing	g by a sma	ıll entity u	inder 37	CFR 1.9	and 1.27	is (are)
WARNI	NG:	available or patent in division, a reissue continuir 121, or applicati the stater or in the	e and desing t, including which the or continue applicating or reiss 365(c) of ion or in the patent and continues apatent and continues of the	red. Status g applicati e status has uation-in-po ion require sue applica a prior ap he patent if e prior appo nd status as	as a small ons or pais ons or pais on pais of the state o	ifically establi. entity in one of tents which ar ablished. The ling a continue letermination inprovisional of or a reissue rovisional app in the patent of entity is still p h a reference j	application of e directly or refiling of an ed prosecution as to continuapplication of the critication or the proper and de aroper and de arefullication de critication and de croper and de aroper and de critication or the critication and de critication of the critication and de critication or the critication and de critication are critication and critication are critication and critication are criticati	r patent dou indirectly d application application application and entitlen laiming ben may rely of the reissue a copy of the esired. The	es not affect lependent up n under § 1. nent to smal efit under 3 on a statem pplication in statement in payment of	any other applicant the applicant the applicant is a constant of the applicant is a constant in the prior apter the small entited in the small entitle in th	oplication or tinuation, e filing of us for the 9(e), 120, the prior ference to oplication
				(comp	lete the	following, i	f applicabl	(e)			
	[]	Status a	as a smal	ll entity v		ned in prior vhich benef			or this app	olication u	_, filed
		35 U.S.	.C. §	[]	119(e), 120, 121, 365(c),						
		and wh	iich statu	ıs as a sm	all entity	y is still pro	per and de	sired.			
		[ ] Filing I				in the prior A, B or C ab		n is includ	led.	_	
NOTE:						if a small ent The two-month					
12.	Reques	st for In	ternatio	nal-Type		(37 C.F.R. ete, if applic					
	[]					type searchits takes pla		r this ap	plication	at the tim	e when

13.	Fee Payment Being Made at This Time								
	[]	Not En	closed						
		[]	No filing fee is to be paid at this time. (This and the surcharge required by 37 C.F.R. 1.16(e) co	an be	e paid s	ubsequently.,	)		
	[X]	Enclos	ed						
		[X]	Filing fee	\$_	770.0	0			
		[]	Recording assignment (\$40.00; 37 C.F.R. 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION.")	\$_					
		[]	Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached (\$130.00; 37 C.F.R. 1.47 and 1.17(i))	\$_					
		[]	For processing an application with a specification in a non-English language (\$130.00; 37 C.F.R. 1.52(d) and 1.17(k))	\$_					
		[]	Processing and retention fee (\$130.00; 37 C.F.R. 1.53(d) and 1.21(l))	\$_		<del></del>			
		[]	Fee for international-type search report (\$40.00; 37 C.F.R. 1.21(e))	\$_					
NOTE:	application	on pursua obtain the	ablishes a fee for processing and retaining any application that is abar nt to 37 CFR 1.53(f) and this, as well as the changes to 37 CFR 1.53 e benefit of a prior U.S. application, either the basic filing fee must 21(l) must be paid, within 1 year from notification under § 53(f).	3 and	1.78(a)(	I), indicate that	t in		
			Total Fees Enclosed	\$_	770.00	0			
14.	Metho	d of Pay	ment of Fees						
	[X]	Check	in the amount of \$_770.00		٠				
	[]		Account No in the amount of \$icate of this transmittal is attached.	<u>.</u>					
15.	Author	rization	to Charge Additional Fees						
WARNI	NG:	If no fees	s are to be paid on filing, the following items should <u>not</u> be completed.						
WARNI	NG:		ely count claims, especially multiple dependent claims, to avoid unexpeare authorized.	ected i	high chai	rges, if extra cla	ıim		
	[X]		ommissioner is hereby authorized to charge the followind during the entire pendency of this application to According	_		•	his		

[X]	37 C.F.R. 1.16(a), (f) or (g) (filing fees) 37 C.F.R. 1.16(b), (c) and (d) (presentation of extra claims)
paid or these clain notice of fee defici	al fees for excess or multiple dependent claims not paid on filing or on later presentation must only be us cancelled by amendment prior to the expiration of the time period set for response by the PTO in any ency (37 CFR 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except ling with amendments after final action.
[X] [X]	37 C.F.R. 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application) 37 CFR 1.17(a)(1)-(5) (extension fees pursuant to § 1.136(a).
[X]	37 C.F.R. 1.17 (application processing fees)
requiring a petition extension of time for required extension reply requiring a p forth in § 1.17(a) v	It may be submitted in an application that is an authorization to treat any concurrent or future reply, in for an extension of time under this paragraph for its timely submission, as incorporating a petition for or the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all of time fees will be treated as a constructive petition for an extension of time in any concurrent or future setition for an extension of time under this paragraph for its timely submission. Submission of the fee set will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a nsion of time under this paragraph for its timely submission." 37 CFR 1.136(a)(3).
[]	37 C.F.R. 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. 1.311(b))
	zation to charge the issue fee to a deposit account has been filed before the mailing of a Notice of the see will be automatically charged to the deposit account at the time of mailing the notice of allowance.
filed in the applica notification of char	equires "Notification of any change in status resulting in loss of entitlement to small entity status must be tion prior to paying, or at the time of paying, issue fee." From the wording of 37 CFR 1.28(b), (a) age of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is age is to another small entity.
Instructions a	s to Overpayment
will the payer be n	wenty-five dollars or less will not be returned unless specifically requested within a reasonable time, nor otified of such amounts; amounts over twenty-five dollars may be returned by check or, if requested, by account." 37 CFR 1.26(a).
[X] Credit	Account No. <u>04-1105</u>
[] Refund	SIGNATURE OF PRACTITIONER
	Because additional paid or these claim notice of fee deficie possibly when deal [X]  [X]  [X]  [X]  [X]  [X]  [X]  [X]

Reg. No. 33,860

Customer No.:

Tel. No.: (617) 439-4444

S. Matthew Cairns (508)229-7545

S. Matthew Cairns (Reg. No. 42,378) EDWARDS & ANGELL, LLP P.O. Box 9169 P.O. Address Boston, MA 02209

Peter F. Corless for: (type or print name of practitioner)

[]	Incorporation by reference of added pages	
	applica divisio	the following item if the application in this transmittal claims the benefit of prior U.S. ation(s) (including an international application entering the U.S. stage as a continuation, anal or C-I-P application) and complete and attach the ADDED PAGES FOR NEW ICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) MED)
	[]	Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed  Number of pages added
	[]	Plus Added Pages for Papers Referred to in Item 4 Above  Number of pages added
	[]	Plus added pages deleting names of inventor(s) named on prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application.  Number of pages added
	[]	Plus "Assignment Cover Letter Accompanying New Application"  Number of pages added
[X]	Statement Where No Further Pages Added	
		further pages form a part of this Transmittal, then end this Transmittal with this page and the following item)
	[X]	This transmittal ends with this page.